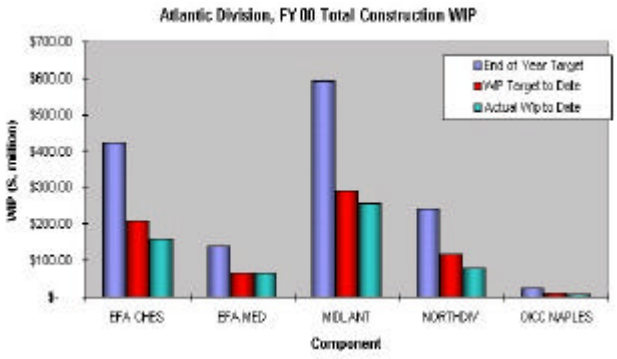
LANTDIV CONSTRUCTION DIVISION

SPADEWORK

ATLANTIC DIVISION, NAVAL FACILITIES ENGINEERING COMMAND

FY 2000 WIP Status

LANTDIV Work in Place (WIP) results for FY 99 were less than successful. We managed to post only $1.594 billion dollars against a goal of $ 1.618 billion. This equates to a 98.5% execution rate. The amount of WIP we failed to post, at a 6% SIOH rate, equates to approximately $1,444,000 of lost budget opportunities. This short fall was a direct result of construction operations as the FSC operations actually exceeded their year end targets by 32%. As shown in the chart below we are once again failing to meet our goals on the construction side of our offices. Presently we are at 82% of our target goal while last year we



were at 91%. Projections for the remainder of the year place us at 97% of the yearly target. I want to stress again that our budgets are based on SIOH dollars. Failure to achieve desired WIP targets will result in lower budgets for LANTDIV and less personnel. I encourage everyone to help improve on our current performance by taking the time to do this reporting. All AROICC's/AREICC's should review the R-26 each month and be sure that the WIP figures you projected are in fact posted. To miss a WIP target because of project delays, bad weather or cancelled projects is a defendable position. However, to miss a target because we failed to get credit for the high quality work our offices are doing is not acceptable. If you have questions on your R-26 please contact your SGE. I am confident that with increased efforts on WIP reporting we can improve our current performance.

By Gary Mackey

Engineer DAWIA Training

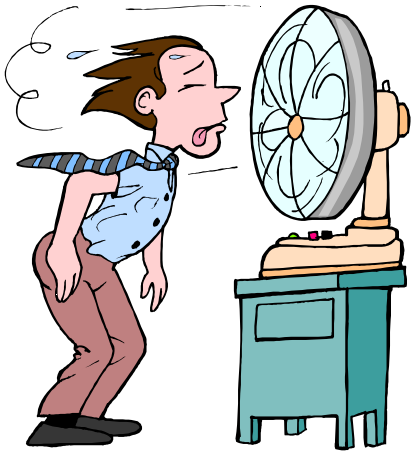
All Engineers and Architects in the GS 800 series should be registered for or working on DAWIA SPRDE level 1 training, ACQ 101. For those working on this desktop based training please remember that you have 60 days to complete the course once you have been notified of enrollment by email.

TABS: PREREQUISITE CHECKLIST

The Testing/Adjusting/Balancing/ Start-up (TABS) procedure on new and modified HVAC systems involves specialized training and experience. This is one reason why TABS contractors are retained to conduct the final balancing on our HVAC projects. Nevertheless, it is only when the ROICC and the prime contractor do their part in

preparing the HVAC equipment ahead of time can the maximum cost benefits of the final TABS processes be appreciated. This often consists of obtaining a completed "prerequisite checklist" from the prime contractor prior to the TABS agency arriving on site. Simply put, the prerequisite checklist is a detailed HVAC "checklist" of mechanical inspections and operations that are to be performed by the prime contractor prior to the TABS work commencing. Quite literally, the TABS prerequisite checklist is the single most important TABS management tool, which can be used by both the seasoned or the less experienced personnel in the field. Conversely, when this contract requirement is not enforced, ROICC personnel often find themselves involved in unusual HVAC start-up matters, customer frustration and contract closeout problems.

The prerequisite checklist is a submittal that is initially submitted by the balance agency in its uncompleted form. The document in its simplest form lists and categorizes "site specific" HVAC systems and/or components that require preparatory inspections prior to testing and balancing. This half-completed form is then reviewed for equipment content and returned to the prime contractor for action. Basically, once the prime contractor receives the approved prerequisite submittal, he/she then assumes the responsibility of checking off each item on the checklist and/or fulfilling the HVAC verification operations offered on the list. Then, when all of the listed items are put in the proper working order, they are dated and checked off the list. The completed inspection document is then forwarded back to the Contracting Officer for final review. Upon successful review, the AROICC gives the authorization to permit the balancing activities to commence.



The governmental and contractor requirements for the preparation and production of this document can typically be found in specification Sections 15996, 15997 or 15950, as applicable, as well as other specification sections which are similar in nature. The thing to remember is that while the contents of these lists may vary from job-to-job the timing of such tests and inspections often occurs when much of the contract is complete and/or when as-built conditions exist. This means that if the TABS requirements are not emphasized throughout the contract the items on the prerequisite lists will not get done as efficiently or as timely. It is for this reason that the earlier prerequisite submittals (blank check-off lists) should not only be tracked, but they should also be tied to early CQC meetings and/or entered in the schedule of prices whenever possible. In the later equipment/system field checks, it might be suggested that these events could be tied to the rework log or other definable feature of work.

In summary, when put to effective use, the TABS prerequisite documents can make the administration of the contract much less complicated and contract closeout much easier for both the AROICC and the Construction Representative. While there will always be an assortment of conditions that challenge the ROICC, the QC Manager and the contractor, the proper execution of the prerequisite checklist will pay significant dividends in realizing an improved, quality product.

Furthermore, as in the past, LANTDIV projects require the initial prerequisite checklists and the completed prerequisite checklists to be forwarded to the ROICC and whenever possible to LANTDIV Code 052 for review. For any assistance on this or any other TABS matters, please call or E-mail LANTDIV Code 052 for assistance. *By Mark Linn*

TABS/ACATS Reference Handbook

The handbook on Testing, Adjusting, Balancing & Start-Up (TABS) and Automatic Controls Acceptance Testing (ACATS) has been converted into a PDF file. The handbook is available for download at the 05 WEB site. **(http://www.efdlant.navfac.navy.mil/lantops_05/home.htm)**

Safety Training

Class number 1 – The 40- Hour Construction Safety Hazard Awareness Course is being offered 15 - 18 May 00 @ Drexler Manor Conference Center located at the Little Creek Amphibious Base, Norfolk. Target audience includes AROICC's/AREICC's, CONREP's, and Engineering Technicians. The remaining FSC transfers who have not attended the previous course offering are strongly encouraged to attend this class. This course has been added to the minimum training requirements established by NAVFAC P-445. This is a highly demanded course and reservations will be made on a first come first serve basis. There is no tuition expense for LANTDIV employees. After a class roster has been established, additional information regarding directions and local accommodations will be provided. The class includes active construction site visits on the third day and will require appropriate personal protective equipment (hard hat, safety shoes, safety glasses).

Class number 2 – There will be an asbestos workshop 25 April @ Drexler Manor Conference Center located at the Little Creek Amphibious Base for ROICC's. The conference will begin @ 0800 and will end at approximately 12:00. The conference is sponsored by Code 05. Workshop facilitators include Susan Hauser (Code 406), Mark Blaha (Code 406) and Bill Garrett (Code 05). Workshop topics include design guide requirements, important reference requirements, recent contractor testing problems encountered (resulting in major expense), and the asbestos specification. The workshop is designed to help ROICC's (all) in managing projects involving asbestos abatement in conjunction with renovation/demolition. We will share experiences with one another to help avoid any asbestos nightmares. Target audience includes representatives from each ROICC. Suggest bringing, in addition to yourself, your asbestos certified person, Supervisory CONREP's), and AROICC's who have been or are expected to be involved in future asbestos projects.
Please register via e-mail to garrettwj@efdlant.navfac.navy.mil as soon as possible.

Waste Management Implementation and Monitoring

The Department of Defense Measures of Merit (MOM) goals for solid and hazardous waste call for a 50% reduction of hazardous waste transferred offsite and a 40% diversion of solid waste from landfills and incinerators in an economical manner. The Naval Facilities Engineering Service Center (ESC) has been tasked to collect all solid waste and hazardous waste annual reports by installation. ESC then compiles this information and provides it back to the claimants for review and forwards a final report to the Chief of Naval Operations and the Commandant of the Marine Corps.

NAVFAC developed specification section 01572, "Waste Management" in November 1997 to help ESC and the claimants collect this information. This specification section requires our contractors to develop a waste management plan, which details the types of waste anticipated, landfill information, materials salvaged, materials recycled, and the costs savings and revenue associated with these actions. The contractor is required to maintain for the duration of the project a waste management program, and to establish a method of documenting and monitoring the program. They are to submit a report with their contractor's payment voucher each month.
ESC does a data call to our customers in October of each year requesting a Pollution Prevention Annual Data Summary (P2ADS) for the calendar year. The monthly reports we receive from our contractors allow the ROICC's to quickly and accurately compile this information for our customers. Additional information can be obtained at ESC's WEB site: http://www.nfesc.navy.mil *By Shaun Sweeny, ROICC NNSY*

Sigonella: An Integrated Product Team Success Story

LANTDIV, EFA MED and the Sigonella NAVFAC Storefront are embarking on a plan to integrate the Operation and Maintenance Support Information (OMSI) system with Archibus, the Station's Computer Aided Facility Management (CAFM) database software. The Sigonella OMSI endeavor can best be described as a "crawl", "walk", "run" journey.

The "crawl" phase for OMSI manuals in Sigonella was the development of volumes of paper binders that provide extremely valuable information but do not totally leverage current information management capabilities.

The "walk" phase started six years ago when the LANTDIV OMSI professionals took this to the next level in the MEGA II $56 million Bachelor Quarters construction program by calling for the construction contractor to provide OMSI Manual copies on microfilm, which was innovative. During the construction phase, the

AROICC (LT Steve Mauro) and CONREP (Geometra Biagio Presti) requested the contractor to consider, as a no-cost field change, to scrap the microfilm and consider an "interactive" type OMSI manual that is launched from Adobe Acrobat using a table of contents. The product is on a CD as opposed to volumes of binders; the CDs can be accessed by everyone in the PW/ROICC Storefront simultaneously from workstations.

The "Run" Phase: In preparation for the Sigonella Recapitalization Program, on the 9th and 10th of March 2000, the LANTDIV OMSI Program Branch, the LANTDIV NASSIG RECAP Program Manager, the CNE Facilities Program Manager, the CNE Archibus Advisor, the EFA Mediterranean Activity Liaison Officer and NASSIG Public Works and ROICC "Field Office Model" OMSI key players plotted the future course. This vision is that the "end user" can sit at a computer workstation and call up the OMSI main menu. This main menu would be a map of the base with buttons to access major information categories or have the option to access a particular facility. For example, the "end user" wants to troubleshoot a problem in the jockey pump at the NAS I new chapel. The end user

clicks on the chapel located on the base map and a "hot link" sends you to a graphic of the chapel floor plan. At this floor plan view there will be buttons for all OMSI Manual information categories. You then click on the room where the pump is located. At this stage you have buttons that link to flow diagrams, record drawings, manufacturer's data, troubleshooting procedures, maintenance procedures, operation and maintenance schedule and historical information related to this pump.

This process provides a tangible example in which an Integrated Product Team concept is providing seamless client-focused planning, design, construction, and maintenance services by leveraging technology. It also represents a concrete illustration of the interdependence and teamwork resulting from LANTDIV, EFA MED, and the NAVFAC Field Office working together as a team to ensure a bright future for NAS Sigonella.

[To see more about Sigonella visit their WEB site at http://roiccWEB.sicily.navy.mil/index.htm. A good site with an excellent downloadable version of the SEABEE hymn. Ed]

Naming of Naval Facilities

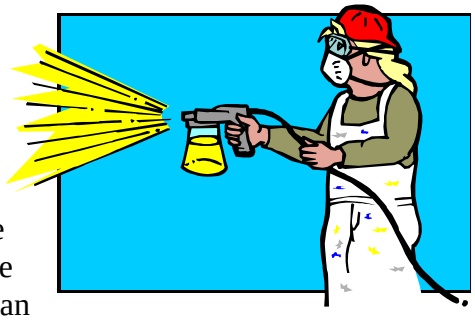
Naming of areas, streets, and facilities must be approved by the Chief of Naval Operations (CNO) via the chain of command. An explanation should be furnished by the nominating Command to support the selection of the name of person who is not nationally well known, also proposed names should be coordinated with local postal and political authorities to assure there will be no conflicts with existing or proposed names in the area. The naming of areas, streets, and facilities provides an opportunity to recognize individuals honored by the Navy or significant local characteristics. Nominations of personal names should be made to honor individuals who have made outstanding contributions of a lasting nature to the Navy. Personnel support facilities should normally be named to honor appropriate deceased members of the naval service whose rank or rate corresponds to that of the primary users to the facilities, however, naval personnel of other seniority may be nominated. The Commanding Officer may approve the naming of a bachelor housing facility when naming after a geographical area or region.

By Nikki Kolen, LANTDIV Code 08

NAVFAC STANDARD FUEL TANK COATING SYSTEMS

This is the first of several articles on the coating systems that the Navy uses to coat industrial structures, with particular discussion on fuel storage tanks. The coating systems discussed here are for all new tanks and for tanks that are being prepared to bare metal. These systems may or may not be suitable for maintenance painting of existing coatings.

For many years, the standard fuel tank lining (interior) system was a three-coat polyurethane system plus a vinyl wash primer, for a total of four coats. Additionally, the topcoat in this system came in two variants, one was a regular polyurethane white topcoat, and the other was a PTFE-Pigmented Fluoropolyurethane White topcoat. A later version of the PTFE-Pigmented Fluoropolyurethane, called Modified PTFE-Pigmented Fluoropolyurethane, became the product of choice when it was determined that the price could be significantly reduced while maintaining most of the functionality of the original product.



Even the Modified PTFE-Pigmented Fluoropolyurethane is much more expensive than the regular polyurethane coat, however, it is much easier to wash down and the unique resin

system provides extraordinary protection of underlying coats and the steel substrate from water and oxygen penetration. This coating was designed by the Naval Research Laboratory, and continues to be the topcoat of choice for Navy fuel tanks.

The first two coats of this four-coat system contain chromates for added adhesion to the steel substrate as well as to inhibit corrosion. Unfortunately, chromates are controlled by EPA as a hazardous material and by OSHA as a health hazard. The combination of controls on this material that affect both application and removal provided sufficient cause for NAVFAC to replace these two coatings in 1998. To provide a consistent system, the third, or intermediate, coat was also replaced. The replacement system for the first three coats of the polyurethane system was two coats of MIL-P-24441 epoxy, commonly referred to as Mare Island epoxy since it was developed at Mare Island Naval Shipyard. Due to some unique characteristics of the vinyl wash primer that was replaced, there was a need to provide additional surface preparation and testing to ensure that the steel substrate is suitable for coating. These changes were made in the guide specifications when the coating system was changed.

To summarize the standard lining system, the primer is MIL-P-24441/29, Formula 150, Type IV, green primer, the intermediate coat is MIL-P-24441/31, Formula 152, Type IV, white (shaded to off-white), and the topcoat is the Modified PTFE-Pigmented Fluoropolyurethane white topcoat. This system is specified in NFGS 09970 which can be downloaded from http://www.nfgs.navy.mil/. Current Navy criteria requires the use of this standard coating system for all fuel tanks with life expectancies exceeding ten years.

There is one alternative that involves replacing the PTFE-Pigmented Fluoropolyurethane white topcoat with MIL-P-24441/31, Formula 152, Type IV, white topcoat. This alternative should only be used for tanks that are not expected to remain in service for more than 10 years. This alternative system is also the standard system of the Air Force. This system will be included in an upcoming update to NFGS 09973, which is specifically for lining of Air Force fuel tanks.

The standard exterior coating system for both Navy and Air Force structures, including fuel tanks, water tanks, aboveground piping, and other steel structures in atmospheric service, is a zinc-rich epoxy primer, epoxy intermediate coat, and a polyurethane topcoat. This system is specified in NFGS 09971 which can be downloaded from http://www.nfgs.navy.mil/. The specified products are MIL-P-24441/19, Formula 159, Type II, zinc-rich epoxy primer, MIL-P-24441/31, Formula 152, Type IV white (shaded off-white) intermediate coat, and MIL-PRF-85285, Type II white (or pastel) topcoat.

These coating systems are our standard coating systems because the specified products are known high-quality products. With few exceptions, all are competitively available from a number of manufacturers, and are readily available for shipment. The Modified PTFE-Pigmented Fluoropolyurethane white topcoat is currently available from three manufacturers and will require prepayment prior to purchasing raw materials for manufacture, therefore, it must be ordered well in advance of anticipated need.

There is a continuing process of evaluating coating systems for use on industrial structures, and the systems listed above are the current standards that are expected to be used for some time.

It should also be noted that MIL-P-24441 has been replaced by MIL-DTL-24441, however, the basic product line remains virtually unchanged except for minor changes that are on-

going. These changes are being incorporated into the guide specifications and will begin to show up in project specifications soon. Projects that reference MIL-P-24441 should be executable with either reference, or we can change the reference to the newer specification without affecting the cost or the finished product *By Ed Gallaher(Code 406) and Joe Brandon (Code 1613)*

The Techno-Corner

Need some environmental information? Visit the Naval Facilities Engineering Services Center WEB site at http://enviro.nfesc.navy.mil or the Shipboard Environmental Information Clearinghouse at http://navyseic.com.

Employee of the Quarter

Susan Wright has been named the Employee of the Quarter for Code 05. Susan was recognized for her enthusiasm and dedication to the Department. Congratulations Susan!

Personnel Moves

Welcome to Angel Ho. Angel is the new Code 051 Assistant Branch Manager. Angel's prior assignment was the SGE at ROICC Keflavick Welcome aboard Angel.

Wirt Shinault has departed Code 051 to assume AREICC duties at ROICC Oceana. Wirt was the Construction Manager for Puerto Rico and all North Carolina ROICC offices. Best of luck Wirt!

Welcome to Mark Linn. Mark, a Mechanical Engineering Technician, joins Code 052. Mark replaced Jim Ewing who has transferred to ROICC Norfolk. Welcome aboard Mark and best of luck Jim.

Navy Internet Service Provider Policy

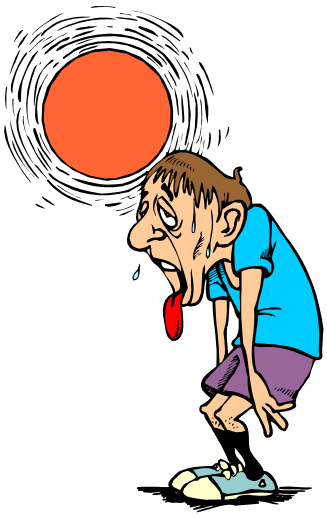
Virtually all offices in NAVFAC now enjoy access to the Internet. E-mail, the Internet and the NAVFAC Intranet make us all more efficient in our ability to get our mission accomplished. This increased access to the WEB has resulted in an equally increased chance that hackers will be able to enter government controlled networks and adversely effect our ability to perform our mission: Provide support to the Sailors and Marines of the Navy/Marine Corps team. The CNO has released a message that requires all Internet connections be through government controlled sources. This means that no one should access their personal Internet Service Provider (ISP) via a government computer. Use of an ISP can allow hackers to bypass government security measures and allow them free access to our internal networks. Give the havoc hackers have created in the past, it is easy to see why this use of personal ISP's is prohibited.

NAVFAC Intranet Address Change

The new address for the NAVFAC intranet is **http://navfacilitator.navfac.navy.mil/.**

Heat Stress Precautions

The first day of Spring has arrived and the last thought on our mind is heat related injuries. However it is never to early to begin preparing for the summer heat and the best way to prepare is to review the signs of heat stroke and heat stress. Heat stroke is a serious life threatening condition. Immediate treatment is required to prevent brain damage or death. Symptoms include lack of sweating, dry flushed skin, confusion, loss of consciousness or convulsions. Heat exhaustion symptoms include clammy skin, pale or flushed complexion and slightly higher than normal body temperature. The first thing to do in case of heat stroke is to call for medical help. Assistance can be as easy as cooling the person by lowering the body temperature with cool compresses or increasing airflow until trained medical staff arrive. In the event of heat exhaustion move the person to a shady or cool area and drink water or fluids. If you have any doubts that the person has heat stroke or heat exhaustion, the best help you can provide is to get trained medical personnel to the scene as quickly as possible. Consult the EM-385, your local medical staff or the OSHA WEB site at www.osha-slc.gov/OshDoc/Fact_data/FSNO95-16.html for additional information.



EFAMED Employees of the Year

EFA MED has selected the following personnel as their Employees of the year:

Ms. Kathy Luhmann (HQ N2) : Employee of the Year
Mr. Bill Crone (ROICC Aviano) : Engineer of the Year
Mr. Biagio Presti (ROICC Sigonella) : Field Employee of the Year
Ms. Jill Barton (HQ N1) : Junior Administrative Employee of the Year

Closing Thought

I find that the harder I work, the more luck I seem to have.
-Thomas Jefferson

G. W. MACKEY, P.E.
Director
Construction Division